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10/006,484	12/05/2001	William Jordan Yarborough	72167.000295	3635

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EXAMINER	
PAN, JOSEPH T	

ART UNIT	PAPER NUMBER
2135	

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/006,484	YARBOROUGH, WILLIAM JORDAN	
	Examiner	Art Unit	
	Joseph Pan	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/29/05&5/10/04&*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's response filed on August 29, 2005 has been received and carefully considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-2, 11-13, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sit et al. (U.S. Patent No. 6,349,336), and further in view of Epstein et al. (U.S. Patent No. 6,584,508).

Referring to claim 1:

i. Sit et al. teach:

A secure system for transferring data, the system comprising:

A client system (see e.g. figure 5, item 314I; and column 7, lines 17-19);

A server (see e.g. figure 5, item 308E; and column 7, lines 19-22);

A secure system interposed between the client system and the server for controlling communications between the client system and the server, the security system including:

A first proxy system (see e.g. figure 5, item 306) and a second proxy system (see e.g. figure 5, item 312), the first proxy system coupled between the client system and the second proxy system (see e.g. figure 5, items 308I, 306, 312; and column 7, lines 15-25) and the second proxy system coupled between the server and the first proxy system (see e.g. figure 5, item 308E, 312, 306);

A firewall coupled between the first proxy system and the second proxy system (see figure 5, items 312, 305, 306), firewall restricting data flow between the first proxy system the second proxy system to outbound communications through a single port on the firewall (see figure 5, item 305; and column 7, lines 26-28).

ii. Sit et al. teach the claimed subject matter: Sit et al. teach to establish a secure communication channel between client and server to transfer HTTP data. However, Sit et al. do not teach to transfer FTP data with the system. Epstein et al. teach a secure system wherein FTP data, as well as HTTP data and SMTP data can be transferred (see figure 2, item 206C; and column 4, lines 16-20 of Epstein et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Epstein et al. into the system of Sit et al.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Epstein et al. into the system of Sit et al. for increasing the security of network guard system (see column 1, lines 14-15 of Epstein et al.).

Referring to claim 2:

Sit et al./Epstein et al. teach:

The client system will send the request to the first proxy system. The first proxy system will forward the request to the second proxy system, via the single port in the firewall, and the second proxy system will establish a connection with the server (see e.g. figure 5, items 308I, 306, 305, 312, 308E; and column 7, lines 34-40 of Sit et al.).

Referring to claim 11:

Sit et al./Epstein et al. teach:

A system of transferring data, comprising a plurality of clients and a plurality of servers to transfer data through the single port in the firewall (see figure 5, items 310I, 308I, 314I, 316I, 310E, 308E, 314E, 316E; and column 7, lines 15-25 of Sit et al.).

Referring to claim 12:

This claim has limitations which is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

Referring to claim 13:

This claim has limitations which is similar to those of claim 2, thus it is rejected with the same rationale applied against claim 2 above.

Referring to claim 25:

This claim has limitations which is similar to those of claim 11, thus it is rejected with the same rationale applied against claim 11 above.

4. Claims 3-4, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sit et al. (U.S. Patent No. 6,349,336), Epstein et al. (U.S. Patent No. 6,584,508), and further in view of Fan et al. (U.S. Patent No. 6,219,706).

Referring to claim 3:

i. Sit et al./Epstein et al. teach the claimed subject matter: Sit et al./Epstein et al. teach to establish a secure communication channel between client and server to transfer FTP data. However, Sit et al./Epstein et al. are silent about command (or control) channel in FTP data transfer.

ii. Fan et al. teach a control channel. The control channel is used to initiate the FTP (File Transfer Protocol) connection between the client and the server (see column 2, lines 12-14 of Fan et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teaching of Fan et al. into the system of Sit et al./Epstein et al.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Fan et al. into the system of Sit et al./Epstein et al. to protect sensitive resources such as engineering workgroup server or financial databases from unauthorized users (see column 1, lines 24-26 of Fan et al.).

Referring to claim 4:

i. Sit et al./Epstein et al. teach the claimed subject matter: Sit et al./Epstein et al. teach to establish a secure communication channel between client and

server to transfer FTP data. However, Sit et al./Epstein et al. are silent about transferring a representation of a socket from server to the client.

ii. Fan et al. disclose the process of setting up a FTP data connection. Via the control channel mentioned in claim 3, the client and server negotiate a port number for data channel (see column 2, lines 14-17 of Fan et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teaching of Fan et al. into the system of Sit et al./Epstein et al.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Fan et al. into the system of Sit et al./Epstein et al. to protect sensitive resources such as engineering workgroup server or financial databases from unauthorized users (see column 1, lines 24-26 of Fan et al.).

Referring to claim 14:

This claim has limitations which is similar to those of claim 3, thus it is rejected with the same rationale applied against claim 3 above.

Referring to claim 15:

This claim has limitations which is similar to those of claim 4, thus it is rejected with the same rationale applied against claim 4 above.

5. Claims 5-10, 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sit et al. (U.S. Patent No. 6,349,336), Epstein et al. (U.S. Patent No. 6,584,508), Fan et al. (U.S. Patent No. 6,219,706), and further in view of Albert et al. (U.S. Patent No. 6,687,222).

Referring to claim 5:

i. Sit et al./Epstein et al./Fan et al. teach the claimed subject matter: Sit et al./Epstein et al./Fan et al. teach to establish a secure communication channel between client and server to transfer FTP data. However, Sit et al./Epstein et al./Fan et al. do not teach modifying the IP address in the socket.

ii. Albert et al. teach to modify the IP address of the host in a packet before forwarding the packet on to client (see figure 3A, item 302; and column 12, lines 29-33 of Albert et al.).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the teaching of Albert et al. into the system of Sit et al./Epstein et al./Fan et al.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Albert et al. into the system of Sit et al./Epstein et al./Fan et al. for enabling a device that is protected by a firewall to be controlled by a device external to the firewall (see column 1, lines 10-12 of Sit et al.).

Referring to claim 8:

This claim has limitations which is similar to those of claim 5, thus it is rejected with the same rationale applied against claim 5 above.

Referring to claim 6:

Sit et al./Epstein et al./Fan et al./Albert et al. teach:

The client system transmits a request through said security system for data located on the server (see figure 5, items 308I, 306; and column 7, lines 34-40 of Sit et al.).

Referring to claim 7:

Sit et al./Epstein et al./Fan et al./Albert et al. teach:

The first proxy server forwards the request to the second proxy server via the single port on the firewall, and on to the data server (see figure 5, items 306, 305, 312, 308E; and column 7, lines 34-40 of Sit et al.).

Referring to claim 9:

Sit et al./Epstein et al./Fan et al./Albert et al. teach:

The server transmits data through said security system to first proxy (see e.g. figure 5, items 308E, 312, 305, 306; and column 7, lines 34-40 of Sit et al.).

Referring to claim 10:

Sit et al./Epstein et al./Fan et al./Albert et al. teach:

The first proxy transmits data to the client system (see e.g. figure 5, items 306, 308l; and column 7, lines 34-40 of Sit et al.).

Referring to claims 16,17,18:

These claims have limitations which is similar to those of claim 5, thus they are rejected with the same rationale applied against claim 5 above.

Referring to claim 19, 22:

These claims have limitations which is similar to those of claim 6, thus they are rejected with the same rationale applied against claim 6 above.

Referring to claim 20:

This claim has limitations which is similar to those of claim 7, thus it is rejected with the same rationale applied against claim 7 above.

Referring to claim 21:

This claim has limitations which is similar to those of claim 8, thus it is rejected with the same rationale applied against claim 8 above.

Referring to claim 23:

This claim has limitations which is similar to those of claim 9, thus it is rejected with the same rationale applied against claim 9 above.

Referring to claim 24:

This claim has limitations which is similar to those of claim 10, thus it is rejected with the same rationale applied against claim 10 above.

Response to Arguments

6. Applicant's arguments filed on August 29, 2005 have been fully considered but they are not persuasive.

Applicant argues that:

"Sit discloses a hypertext transfer protocol (HTTP) tunneling action that allows a remote processor to communicate with a local processor when the remote

processor is coupled to the local processor via a reverse proxy device, a computer network, a firewall and a proxy agent device"

"In its proper context, the quoted passage only shows that the two proxy devices are in "persistent connection" with each other while servicing a HTTP session"

"To achieve this goal, Sit implements two HTTP proxies to trick the firewall into believing the incoming requests are response to some outgoing requests."

Examiner maintains that:

The invention of Sit et al. enables a tunneling action that allows a remote processor to communicate with a local processor when the remote processor is coupled to the local processor via a reverse proxy device, a computer network, a firewall and a proxy agent device (see abstract of Sit et al.). Sit et al. disclose that that the invention relates to message transfer across a firewall (see column 1, lines 9-10 of Sit et al.), and that the invention can be applied to HTTP and other message transfer protocols such as Simple Mail Transfer Protocol (SMTP) (see page 4, lines 45-50 of Sit et al.). Sit et al. further disclose that the provision of reverse proxy 312 and agent 306 allows browsers 314I, 314E and Web servers 308I, 308E to be completely ignorant of the reverse tunneling procedure, and that the procedure is also transparent to applications such as 316I and 316E that interface directly with agent 306 and reverse proxy 312, respectively. Accordingly, the present invention is implemented without any modification of code or addition of code with respect to applications 316I, 316E, applications running on the PCs 310I, 310E, Web servers 308I, 308E and browsers 314I, 314E (see figure 5; and page 8, lines 22-31 of Sit et al.).

Applicant argues that:

"While one connection is kept open between the two proxy devices for one HTTP session, there is no suggestion that the same connection will be used for all HTTP sessions (i.e., all data flows) between the two proxy devices."

Examiner maintains that:

Figure 5 of Sit et al. indicates the multiplexing capability of reverse proxy 312 and the proxy agent 306.

Epstein et al. also disclose that the very essence of a proxy is network I/O. The proxy will therefore need to perform socket-related system calls. Depending on the proxy, it is possible to restrict the ports that the proxy is allowed to access so that the proxy cannot poke extra holes in the firewall. HTTP proxies will typically bind only to a default socket (e.g., 80). Accordingly, a software wrapper for an HTTP proxy can include a constraint such that the HTTP proxy can only bind to the default socket (see column 6, lines 28-36 of Epstein et al.).

Applicant argues that:

"There Is No Suggestion or Motivation to Combine or Modify Sit and Epstein."

Examiner maintains that:

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Sit et al. disclose that the invention relates to message transfer across a firewall (see column 1, lines 9-10 of Sit et al.), and that the invention can be applied to HTTP and other message transfer protocols such as Simple Mail Transfer Protocol (SMTP) (see page 4, lines 45-50 of Sit et al.). Sit et al. further disclose that the provision of reverse proxy 312 and agent 306 allows browsers 314I, 314E and Web servers 308I, 308E to be completely ignorant of the reverse tunneling procedure, and that the procedure is also transparent to applications such as 316I and 316E that interface directly with agent 306 and reverse proxy 312, respectively (see figure 5; and page 8, lines 22-27 of Sit et al.). On the other hand, Epstein et al. discloses a system wherein the proxy server includes a plurality of proxy applications, including FTP proxy application (see column 4,

lines 16-20 of Epstein et al.). Therefore, there is a motivation to combine the teaching of Epstein et al. with the system of Sit et al.

Applicant argues that:

"The Sit-Epstein Combination Fails to Teach or Suggest All the Elements in the Claimed Invention"

Examiner maintains that:

Sit et al. and Epstein et al. do not need to disclose anything over and above the invention as claimed in order to render it unpatentable or anticipated. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claimed limitations.

For the above reasons, it is believed that the rejection should be sustained.

Conclusion

7. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Pan whose telephone number is 571-272-5987.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Primary Examiner
Art Unit 2135

Joseph Pan
October 24, 2005